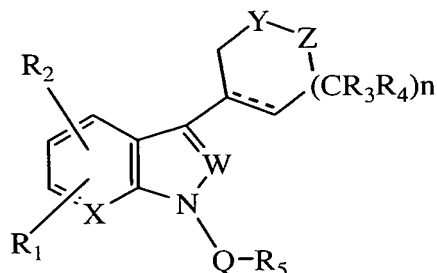


## WHAT IS CLAIMED IS:

1. A compound of formula I



(I)

5 wherein

Q is SO<sub>2</sub>, CO, CONR<sub>24</sub>, CSNR<sub>25</sub> or CH<sub>2</sub>;

W is N or CR<sub>6</sub>;

X is N or CR<sub>7</sub>;

Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;

10 n is 0 or an integer of 1 or 2;

Z is NR<sub>11</sub> or CR<sub>12</sub>R<sub>13</sub> with the proviso that when n is 1, Q is SO<sub>2</sub>, CO or CH<sub>2</sub> and W is CR<sub>6</sub> then Z must be CR<sub>12</sub>R<sub>13</sub> and with the further provisos that when Y is NR<sub>8</sub> then Z must be CR<sub>12</sub>R<sub>13</sub> and at least one of Y and Z must be NR<sub>8</sub> or NR<sub>11</sub>;

15 R<sub>1</sub>, R<sub>2</sub> and R<sub>7</sub> are each independently H, halogen, CN, OCO<sub>2</sub>R<sub>14</sub>, CO<sub>2</sub>R<sub>15</sub>, CONR<sub>29</sub>R<sub>30</sub>, CNR<sub>16</sub>NR<sub>17</sub>R<sub>18</sub>, SO<sub>m</sub>R<sub>19</sub>, NR<sub>20</sub>R<sub>21</sub>, OR<sub>22</sub>, COR<sub>23</sub> or a C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

20 R<sub>3</sub>, R<sub>4</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>12</sub> and R<sub>13</sub> are each independently H or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl group;

R<sub>5</sub> is an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group;

25 m is 0 or an integer of 1 or 2;

R<sub>6</sub> is H, halogen, or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, aryl or heteroaryl group;

- $R_8$  and  $R_{11}$  are each independently H,  $CNR_{26}NR_{27}R_{28}$  or a  $C_1$ - $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;
- $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;
- $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$  and  $R_{30}$  are each independently H or  $C_1$ - $C_4$ alkyl;
- $R_{19}$  is an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group;
- $R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group;
- and
- represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

2. The compound according to claim 1 wherein Y is  $NR_8$ .
3. The compound according to claim 1 wherein n is 0 or 2.
4. The compound according to claim 1 wherein W is N.
5. The compound according to claim 2 wherein n is 1.
6. The compound according to claim 4 wherein Z is  $NR_{11}$ .
7. The compound according to claim 5 wherein Q is  $SO_2$  and  $R_5$  is an optionally substituted aryl or heteroaryl group.

8. The compound according to claim 7 wherein X is CH and --- represents a single bond.

9. The compound according to claim 1 selected from  
5 the group consisting of:  
1-(phenylsulfonyl)-3-(piperidin-4-yl)-1H-indazole;  
1-(4-nitrophenyl)-3-(piperidin-4-yl)-1H-indazole;  
1-(4-fluorophenyl)-3-(piperidin-4-yl)-1H-indazole;  
1-(3,4-dimethoxyphenyl)-3-(piperidin-4-yl)-1H-indazole;  
10 1-(4-fluorophenylsulfonyl)-3-(1-methyl-pyrrolidin-3-yl)-1H-  
indole;  
1-(4-chlorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
indole;  
1-(naphth-2-ylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
15 indole;  
1-(4-aminophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
indole;  
1-(3,4-dimethoxyphenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-  
1H-indole;  
20 1-(3,4-dichlorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-  
1H-indole;  
1-[(4,5-dichlorothien-2-yl)sulfonyl]-3-(1-methyl-pyrrolidin-  
3-yl)-1H-indole;  
1-(2-bromophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
25 indole;  
1-(4-iodophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
indole;  
1-(2-iodophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-  
indole;  
30 1-(4-aminophenylsulfonyl)-3-(1-benzylpyrrolidin-3-yl)-1H-  
indole;  
3-(1-benzylpyrrolidin-3-yl)-1-(4-methylphenylsulfonyl)-1H-  
indole;  
3-(1-benzylpyrrolidin-3-yl)-1-(3,4-dichlorophenyl-sulfonyl)-  
35 1H-indole;

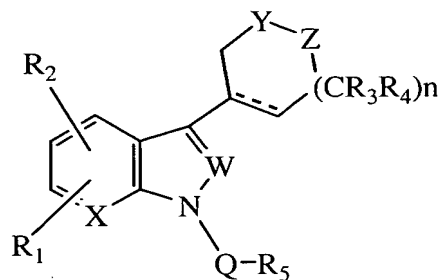
- 3-(1-benzylpyrrolidin-3-yl)-1-(2-bromophenylsulfonyl)-1H-indole;  
5-[3-(1-benzylpyrrolidin-3-yl)-indole-1-sulfonyl]-4-methylthiazol-2-ylamine;  
5 3-(1-benzylpyrrolidin-3-yl)-1-[(5-bromothiophen-2-yl)sulfonyl]-1H-indole;  
1-phenylsulfonyl-3-(1-methylpyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
1-phenylsulfonyl-3-(1-methylpyrrolidin-3-yl)-1H-indazole;  
10 1-phenylsulfonyl-3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
1-phenylsulfonyl-3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-indole;  
1-phenylsulfonyl-3-(1-methylpiperidin-4-yl)-1H-indazole;  
15 1-phenylsulfonyl-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1H-indazole;  
1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-indole;  
20 1-phenylsulfonyl-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;  
1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;  
1-phenylsulfonyl-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;  
25 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;  
1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;  
30 1-(benzo[b]thiophen-4-ylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
1-(3-fluorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indazole;

- 1-(2,5-dichlorophenylsulfonyl)-3-(2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
8-[3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)indole-1-sulfonyl]-quinoline;  
5 1-phenylsulfonyl-5-chloro-3-(1-methylpiperidin-4-yl)-1H-indazole;  
5-methoxy-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indazole;  
3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-pyrrolo[2,3-b]pyridine;  
10 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indole;  
1-(benzo[b]thien-4-ylsulfonyl)-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;  
8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
15 3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;  
8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-pyrrolo[2,3-b]pyridine-1-sulfonyl]-quinoline;  
20 8-[5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;  
1-(benzo[b]thien-4-ylsulfonyl)-3-(1-benzyl-pyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
25 1-(3-fluoro-phenylsulfonyl)-3-(1-phenethyl-pyrrolidin-3-yl)-1H-indazole;  
1-(2,5-dichlorophenylsulfonyl)-3-(1-ethyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
30 3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1-(naphth-2-ylsulfonyl)-1H-indole;  
5-chloro-1-(3-fluorophenylsulfonyl)-3-piperidin-4-yl-1H-indazole;  
5-methoxy-1-(naphth-1-ylsulfonyl)-3-(1,2,2-trimethyl-1,2,3,6-tetrahydro-pyridin-4-yl)-1H-indazole;  
35

- 1-(naphth-1-ylsulfonyl)-3-(1-phenethyl-azepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
 3-azepan-4-yl-1-(naphth-1-ylsulfonyl)-1H-indole;  
 3-azepan-4-yl-1-(3-chloro-5-methyl-benzo[b]thien-2-ylsulfonyl)-5-fluoro-1H-indole;  
 8-[3-(1-phenethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
 3-[1-(3,3-dimethylbutyl)-2,5,6,7-tetrahydro-1H-azepin-4-yl]-1-(naphth-2-ylsulfonyl)-1H-indole;  
 1-(2,3-dichlorophenylsulfonyl)-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
 1-[(3-chloro-5-methoxyphenylsulfonyl)]-3-(2,2-dimethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-5-fluoro-1H-indole;  
 3-azepan-4-yl-5-fluoro-1-(naphth-2-ylsulfonyl)-1H-indole;  
 1-Benzenesulfonyl-3-piperidin-3-yl-1H-indole;  
 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(4-methoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(2-naphthylsulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-indole;  
 1-(2,6-dichloro-imidazo[2,1-b]thiazole-5-sulfonyl)-3-piperidin-3-yl-1H-indole;

2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-imidazo[1,2-a]pyridine;  
 2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-benzo[d]imidazo[2,1-b]thiazole;  
 5 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 10 1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 15 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(2-naphthylenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 20 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-imidazo[1,2-a]pyridine;  
 25 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-benzo[d]imidazo[2,1-b]thiazole;  
 and the pharmaceutically acceptable salts thereof.

10. A method for the treatment of a disorder of the  
 30 central nervous system related to or affected by the 5-HT<sub>6</sub> receptor in a patient in need thereof which comprises providing said patient with a therapeutically effective amount of a compound of formula I



(I)

wherein

Q is SO<sub>2</sub>, CO, CONR<sub>24</sub>, CSNR<sub>25</sub> or CH<sub>2</sub>;

W is N or CR<sub>6</sub>;

5 X is N or CR<sub>7</sub>;

Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;

n is 0 or an integer of 1 or 2;

10 Z is NR<sub>11</sub> or CR<sub>12</sub>R<sub>13</sub> with the proviso that when n is 1, Q is SO<sub>2</sub>, CO or CH<sub>2</sub> and W is CR<sub>6</sub> then Z must be CR<sub>12</sub>R<sub>13</sub> and with the further provisos that when Y is NR<sub>8</sub> then Z must be CR<sub>12</sub>R<sub>13</sub> and at least one of Y and Z must be NR<sub>8</sub> or NR<sub>11</sub>;

15 R<sub>1</sub>, R<sub>2</sub> and R<sub>7</sub> are each independently H, halogen, CN, OCO<sub>2</sub>R<sub>14</sub>, CO<sub>2</sub>R<sub>15</sub>, CONR<sub>29</sub>R<sub>30</sub>, CNR<sub>16</sub>NR<sub>17</sub>R<sub>18</sub>, SO<sub>m</sub>R<sub>19</sub>, NR<sub>20</sub>R<sub>21</sub>, OR<sub>22</sub>, COR<sub>23</sub> or a C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

R<sub>3</sub>, R<sub>4</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>12</sub> and R<sub>13</sub> are each independently H or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl group;

20 R<sub>5</sub> is an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

R<sub>6</sub> is H, halogen, or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, aryl or heteroaryl group;



$R_8$  and  $R_{11}$  are each independently H,  $CNR_{26}NR_{27}R_{28}$  or a  $C_1$ - $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;

5  $R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;

$R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$  and  $R_{30}$  are each independently H or  $C_1$ - $C_4$ alkyl;

10  $R_{19}$  is an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group;

$R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group; and

15 ---- represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

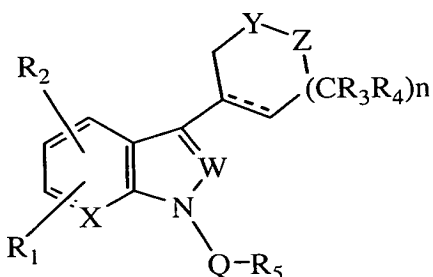
20 11. The method according to claim 10 wherein said disorder is a mood disorder, a motor disorder, or a cognitive disorder.

25 12. The method according to claim 10 wherein said disorder is schizophrenia.

13. The method according to claim 11 wherein said disorder is anxiety or depression.

30 14. The method according to claim 11 wherein said disorder is memory loss or attention deficit disorder.

35 15. A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I



(I)

wherein

Q is SO<sub>2</sub>, CO, CONR<sub>24</sub>, CSNR<sub>25</sub> or CH<sub>2</sub>;

W is N or CR<sub>6</sub>;

5 X is N or CR<sub>7</sub>;

Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;

n is 0 or an integer of 1 or 2;

Z is NR<sub>11</sub> or CR<sub>12</sub>R<sub>13</sub>, with the proviso that when n is 1, Q is SO<sub>2</sub>, CO or CH<sub>2</sub>, and W is CR<sub>6</sub> then Z must be CR<sub>12</sub>R<sub>13</sub>

10 and with the further provisos that when Y is NR<sub>8</sub> then Z must be CR<sub>12</sub>R<sub>13</sub> and at least one of Y and Z must be NR<sub>8</sub> or NR<sub>11</sub>;

R<sub>1</sub>, R<sub>2</sub> and R<sub>7</sub> are each independently H, halogen, CN, OCO<sub>2</sub>R<sub>14</sub>, CO<sub>2</sub>R<sub>15</sub>, CONR<sub>29</sub>R<sub>30</sub>, CNR<sub>16</sub>NR<sub>17</sub>R<sub>18</sub>, SO<sub>m</sub>R<sub>19</sub>, NR<sub>20</sub>R<sub>21</sub>, OR<sub>22</sub>, COR<sub>23</sub> or a C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

15

R<sub>3</sub>, R<sub>4</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>12</sub> and R<sub>13</sub> are each independently H or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl group;

20

R<sub>5</sub> is an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

R<sub>6</sub> is H, halogen, or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, aryl or heteroaryl group;

25

R<sub>8</sub> and R<sub>11</sub> are each independently H, CNR<sub>26</sub>NR<sub>27</sub>R<sub>28</sub> or a C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, cycloheteralkyl, aryl or heteroaryl group each optionally substituted;

$R_{14}$ ,  $R_{15}$ ,  $R_{22}$  and  $R_{23}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;

5  $R_{16}$ ,  $R_{17}$ ,  $R_{18}$ ,  $R_{20}$ ,  $R_{21}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$  and  $R_{30}$  are each independently H or  $C_1$ - $C_4$ alkyl;

$R_{19}$  is an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group;

10  $R_{24}$  and  $R_{25}$  are each independently H or an optionally substituted  $C_1$ - $C_6$ alkyl, aryl or heteroaryl group; and

---- represents a single bond or a double bond; or the stereoisomers thereof or the pharmaceutically acceptable salts thereof.

15

16. The composition according to claim 15 having a formula I compound wherein n is 1; Q is  $SO_2$ ; Y is  $NR_8$ ; and X is  $CR_7$ .

20

17. The composition according to claim 15 having a formula I compound wherein n is 0; Q is  $SO_2$ ; X is  $CR_7$ ; and Z is  $NR_{11}$ .

25 18. The composition according to claim 16 having a formula I compound wherein  $R_5$  is an optionally substituted aryl group and ---- represents a single bond.

19. The composition according to claim 15 having a formula I compound selected from the group consisting of:

30 1-(phenylsulfonyl)-3-(piperidin-4-yl)-1H-indazole;  
 1-(4-nitrophenyl)-3-(piperidin-4-yl)-1H-indazole;  
 1-(4-fluorophenyl)-3-(piperidin-4-yl)-1H-indazole;  
 1-(3,4-dimethoxyphenyl)-3-(piperidin-4-yl)-1H-indazole;  
 1-(4-fluorophenylsulfonyl)-3-(1-methyl-pyrrolidin-3-yl)-1H-  
 35 indole;

- 1-(4-chlorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(naphth-2-ylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 5 1-(4-aminophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(3,4-dimethoxyphenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(3,4-dichlorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 10 1-[(4,5-dichlorothien-2-yl)sulfonyl]-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(2-bromophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 15 1-(4-iodophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(2-iodophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indole;
- 1-(4-aminophenylsulfonyl)-3-(1-benzylpyrrolidin-3-yl)-1H-indole;
- 20 3-(1-benzylpyrrolidin-3-yl)-1-(4-methylphenylsulfonyl)-1H-indole;
- 3-(1-benzylpyrrolidin-3-yl)-1-(3,4-dichlorophenylsulfonyl)-1H-indole;
- 25 3-(1-benzylpyrrolidin-3-yl)-1-(2-bromophenylsulfonyl)-1H-indole;
- 5-[3-(1-benzylpyrrolidin-3-yl)-indole-1-sulfonyl]-4-methylthiazol-2-ylamine;
- 3-(1-benzylpyrrolidin-3-yl)-1-[(5-bromothien-2-yl)sulfonyl]-1H-indole;
- 30 1-phenylsulfonyl-3-(1-methylpyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;
- 1-phenylsulfonyl-3-(1-methylpyrrolidin-3-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;
- 35

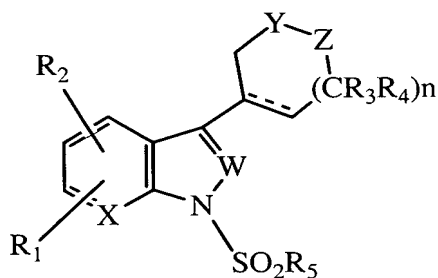
- 1-phenylsulfonyl-3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 1-phenylsulfonyl-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1H-indazole;
- 5 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;
- 1-phenylsulfonyl-3-(1-methylazepan-4-yl)-1H-indole;
- 1-phenylsulfonyl-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;
- 10 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-b]pyridine;
- 15 1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 1-phenylsulfonyl-5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1H-indole;
- 20 1-(benzo[b]thioen-4-ylsulfonyl)-3-(1-methyl-pyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;
- 1-(3-fluorophenylsulfonyl)-3-(1-methylpyrrolidin-3-yl)-1H-indazole;
- 1-(2,5-dichlorophenylsulfonyl)-3-(2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;
- 25 8-[3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)indole-1-sulfonyl]-quinoline;
- 1-phenylsulfonyl-5-chloro-3-(1-methylpiperidin-4-yl)-1H-indazole;
- 30 5-methoxy-3-(1-methyl-1,2,3,6-tetrahydropyridin-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indazole;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-pyrrolo[2,3-b]pyridine;
- 3-(1-methylazepan-4-yl)-1-(naphth-1-yl-sulfonyl)-1H-indole;

- 1- (benzo[b]thien-4-ylsulfonyl)-5-fluoro-3-(1-methylazepan-4-yl)-1H-indole;  
8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
5 3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;  
8-[3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-pyrrolo[2,3-b]pyridine-1-sulfonyl]-quinoline;  
8-[5-fluoro-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
10 5-fluoro-3-(1-methyl-2,5,6,7-tetrahydro-1H-azepin-4-yl)-1-(naphth-1-ylsulfonyl)-1H-indole;  
1-(benzo[b]thien-4-ylsulfonyl)-3-(1-benzyl-pyrrolidin-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
15 1-(3-fluoro-phenylsulfonyl)-3-(1-phenethyl-pyrrolidin-3-yl)-1H-indazole;  
1-(2,5-dichlorophenylsulfonyl)-3-(1-ethyl-2,5-dihydro-1H-pyrrol-3-yl)-1H-pyrrolo[2,3-b]pyridine;  
3-(1-methyl-2,5-dihydro-1H-pyrrol-3-yl)-1-(naphth-2-ylsulfonyl)-1H-indole;  
20 5-chloro-1-(3-fluorophenylsulfonyl)-3-piperidin-4-yl-1H-indazole;  
5-methoxy-1-(naphth-1-ylsulfonyl)-3-(1,2,2-trimethyl-1,2,3,6-tetrahydro-pyridin-4-yl)-1H-indazole;  
25 1-(naphth-1-ylsulfonyl)-3-(1-phenethyl-azepan-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
3-azepan-4-yl-1-(naphth-1-ylsulfonyl)-1H-indole;  
3-azepan-4-yl-1-(3-chloro-5-methyl-benzo[b]thien-2-ylsulfonyl)-5-fluoro-1H-indole;  
30 8-[3-(1-phenethyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-indole-1-sulfonyl]-quinoline;  
3-[1-(3,3-dimethylbutyl)-2,5,6,7-tetrahydro-1H-azepin-4-yl]-1-(naphth-2-ylsulfonyl)-1H-indole;  
1-(2,3-dichlorophenylsulfonyl)-3-(1-methyl-2,3,6,7-tetrahydro-1H-azepin-4-yl)-1H-pyrrolo[2,3-b]pyridine;  
35

- 1-[(3-chloro-5-methoxyphenylsulfonyl)]-3-(2,2-dimethyl-  
2,3,6,7-tetrahydro-1H-azepin-4-yl)-5-fluoro-1H-indole;  
3-azepan-4-yl-5-fluoro-1-(naphth-2-ylsulfonyl)-1H-indole;  
1-Benzenesulfonyl-3-piperidin-3-yl-1H-indole;  
5 1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-  
indole;  
1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
10 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-  
indole;  
1-(4-methoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-indole;  
1-(4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-  
indole;  
15 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-  
indole;  
1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-  
3-yl-1H-indole;  
1-(2-naphthylsulfonyl)-3-piperidin-3-yl-1H-indole;  
20 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-  
piperidin-3-yl-1H-indole;  
1-(2,6-dichloro-imidazo[2,1-b]thiazole-5-sulfonyl)-3-  
piperidin-3-yl-1H-indole;  
2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-imidazo[1,2-  
25 a]pyridine;  
2-chloro-3-(3-piperidin-3-yl-indole-1-sulfonyl)-  
benzo[d]imidazo[2,1-b]thiazole;  
1-(4-isopropyl-benzenesulfonyl)-3-piperidin-3-yl-1H-  
pyrrolo[2,3-b]pyridine;  
30 1-(5-chloro-thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-  
pyrrolo[2,3-b]pyridine;  
1-(3-chloro-benzenesulfonyl)-3-piperidin-3-yl-1H-  
pyrrolo[2,3-b]pyridine;  
1-(3,4-difluoro-benzenesulfonyl)-3-piperidin-3-yl-1H-  
35 pyrrolo[2,3-b]pyridine;

- 1-(4-trifluoromethoxy-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(3-chloro-4-methyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 5 1-(2-chloro-4-trifluoromethyl-benzenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(2-naphthylenesulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 1-(5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl)-3-piperidin-3-yl-1H-pyrrolo[2,3-b]pyridine;  
 10 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-imidazo[1,2-a]pyridine;  
 2-chloro-3-(3-piperidin-3-yl-pyrrolo[2,3-b]pyridine-1-sulfonyl)-benzo[d]imidazo[2,1-b]thiazole; and  
 15 the pharmaceutically acceptable salts thereof.

20. A process for the preparation of a compound of formula If



(If)

20

wherein

W is N or CR<sub>6</sub>;

X is N or CR<sub>7</sub>;

Y is NR<sub>8</sub> or CR<sub>9</sub>R<sub>10</sub>;

25

n is 0 or an integer of 1 or 2;



Z is  $\text{NR}_{11}$  or  $\text{CR}_{12}\text{R}_{13}$ , with the proviso that when n is 1 and W is  $\text{CR}_6$  then Z must be  $\text{CR}_{12}\text{R}_{13}$ , and with the further provisos that when Y is  $\text{NR}_8$  then Z must be  $\text{CR}_{12}\text{R}_{13}$ , and at least one of Y and Z must be  $\text{NR}_8$  or  $\text{NR}_{11}$ ;

5  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_7$  are each independently H, halogen, CN,  $\text{OCO}_2\text{R}_{14}$ ,  $\text{CO}_2\text{R}_{15}$ ,  $\text{CONR}_{29}\text{R}_{30}$ ,  $\text{CONR}_{29}\text{R}_{30}$ ,  $\text{CNR}_{16}\text{NR}_{17}\text{R}_{18}$ ,  $\text{SO}_m\text{R}_{19}$ ,  $\text{NR}_{20}\text{R}_{21}$ ,  $\text{OR}_{22}$ ,  $\text{COR}_{23}$  or a  $\text{C}_1$ - $\text{C}_6$ alkyl,  $\text{C}_2$ - $\text{C}_6$ alkenyl,  $\text{C}_2$ - $\text{C}_6$ alkynyl,  $\text{C}_3$ - $\text{C}_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

10  $\text{R}_3$ ,  $\text{R}_4$ ,  $\text{R}_9$ ,  $\text{R}_{10}$ ,  $\text{R}_{12}$  and  $\text{R}_{13}$  are each independently H or an optionally substituted  $\text{C}_1$ - $\text{C}_6$ alkyl group;

$\text{R}_5$  is an optionally substituted  $\text{C}_1$ - $\text{C}_6$ alkyl, aryl or heteroaryl group;

m is 0 or an integer of 1 or 2;

15  $\text{R}_6$  is H, halogen, or an optionally substituted  $\text{C}_1$ - $\text{C}_6$ alkyl,  $\text{C}_1$ - $\text{C}_6$ alkoxy, aryl or heteroaryl group;

$\text{R}_8$  and  $\text{R}_{11}$  are each independently H,  $\text{CNR}_{26}\text{NR}_{27}\text{R}_{28}$  or a  $\text{C}_1$ - $\text{C}_6$ alkyl,  $\text{C}_3$ - $\text{C}_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group each optionally substituted;

20  $\text{R}_{14}$ ,  $\text{R}_{15}$ ,  $\text{R}_{22}$  and  $\text{R}_{23}$  are each independently H or an optionally substituted  $\text{C}_1$ - $\text{C}_6$ alkyl,  $\text{C}_2$ - $\text{C}_6$ alkenyl,  $\text{C}_2$ - $\text{C}_6$ alkynyl,  $\text{C}_3$ - $\text{C}_6$ cycloalkyl, cycloheteroalkyl, aryl or heteroaryl group;

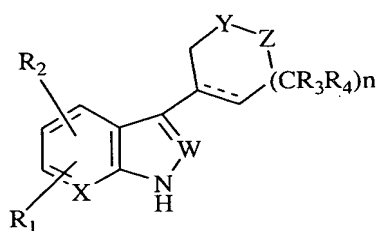
25  $\text{R}_{16}$ ,  $\text{R}_{17}$ ,  $\text{R}_{18}$ ,  $\text{R}_{20}$ ,  $\text{R}_{21}$ ,  $\text{R}_{26}$ ,  $\text{R}_{27}$ ,  $\text{R}_{28}$ ,  $\text{R}_{29}$  and  $\text{R}_{30}$  are each independently H or  $\text{C}_1$ - $\text{C}_4$ alkyl;

$\text{R}_{19}$  is an optionally substituted  $\text{C}_1$ - $\text{C}_6$ alkyl, aryl or heteroaryl group; and

---- represents a single bond or a double bond

which process comprises reacting a compound of formula IVa

30



(IVa)

wherein W, X, Y, Z, n, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are as defined above  
 with a sulfonyl chloride, R<sub>5</sub>SO<sub>2</sub>Cl, wherein R<sub>5</sub> is defined  
 5 above in the presence of a base.